CENTERS FOR DISEASE CONTROL

May 13, 1988 / Vol. 37 / No. 18

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Acute Traumatic Spinal Cord Injury Surveillance — United States, 1987

In 1987, the Council of State and Territorial Epidemiologists (CSTE) recommended designating traumatic spinal cord injuries (SCIs) as the first injury condition reportable to state health agencies and to CDC. In that same year, two surveys were conducted to identify existing registries for SCIs in the United States. One survey, which was conducted by the Spinal Cord Injury Program in Florida, used a computer-based information exchange system to gather information from vocational rehabilitation agencies. Agencies in 82% (42 of 51) of the states and the District of Columbia replied. The second, a telephone survey, was conducted independently by the National Spinal Cord Injury Association (NSCIA).* State health departments in all 50 states† were contacted.

Each survey identified eight states as having SCI registries; however, the results of the surveys differed. These results and information obtained by personal communication indicate that the following 14 states have registries for traumatic SCI: Alabama, Arkansas, Colorado, Florida, Georgia, Iowa, Louisiana, Maryland, Missouri, Oklahoma, New Jersey, North Dakota, Virginia, and West Virginia. In ten states, reporting is mandated by law; it is voluntary in the remaining four states. In most states, SCI data are collected to aid in planning for rehabilitative services.

Reported by: the Spinal Cord Injury Program, Div of Vocational Rehabilitation, Dept of Labor and Employment Security, Tallahassee, Florida. J Spack, JD, National Spinal Cord Injury Assoc, Woburn, Massachusetts. GR Istre, MD, State Epidemiologist, Oklahoma State Dept of Health. Div of Injury Epidemiology and Control, Center for Environmental Health and Injury Control, CDC.

Editorial Note: CSTE's recommendation to designate SCIs as reportable was based on the magnitude of the morbidity and mortality due to traumatic SCIs, the cost associated with these injuries, and the potential for their prevention. It is a practical choice because the number of cases is manageable and consensus can be reached on the case definition.

Estimates of the incidence of acute traumatic SCI in the United States range between 28 and 50 injuries per million persons per year (*1*). At present, there are over 200,000 cases of SCI in the United States (*2*). Older adolescent and young adult males are at high risk for SCI. The consequences of injury for persons in these age groups include reduced lifetime employment, limited productivity, and decreased quality of life. Injured individuals may also need special services throughout life (*1*). The direct medical costs of these injuries to the federal government exceed $4 billion per

*NSCIA is a private, nonprofit national health agency that serves as a resource and clearinghouse for information on SCIs, including prevention and rehabilitation.
†The District of Columbia was not contacted.

Spinal Cord Injury — Continued

year (*3*). Lost earnings associated with SCI are estimated to be $3.4 billion (in 1987 dollars) annually (Department of Rehabilitation Medicine, University of Alabama/Birmingham, unpublished data).

Surveillance is needed to better define the national incidence of acute traumatic SCI, to identify high-risk groups in order to target prevention strategies, and to determine etiologies so that prevention programs can be developed. The data presently collected by SCI registries may be useful in targeting high-risk groups and determining etiologies. However, case definitions, reporting sources, and level of information collected vary among registries.

CDC is working with CSTE and other interested groups to 1) review existing surveillance systems and registries for acute traumatic SCI, 2) determine the information needs of public health and clinical practice, 3) develop a workable case definition, 4) determine the information to be collected, and 5) identify reporting sources. SCI is one of the disabilities targeted for support by CDC's disabilities prevention program. This program will provide state and local agencies with funding to prevent primary and secondary disabilities such as those caused by acute traumatic SCIs.

The public health benefit of registries at the local level can be realized only if the information collected is useful to those planning intervention strategies. The implementation of these strategies may involve the participation of many agencies within the state or local government, along with private interest groups. Registries will be useful at the national level only if a standard case definition is used and if information is collected, analyzed, and interpreted consistently and systematically.

References

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Update: Acquired Immunodeficiency Syndrome (AIDS) — Worldwide

As of March 21, 1988, 136 countries or territories throughout the world had reported a total of 84,256 cases of acquired immunodeficiency syndrome (AIDS) to the Global Programme on AIDS (GPA) (formerly the Special Programme on AIDS) of the World Health Organization (WHO) (Table 1).* Thirty-seven countries or territories had reported no AIDS cases. Reports are based on either the CDC/WHO surveillance definition (*1,2*), the WHO clinical definition (*3*), or a physician's diagnosis. From 1979 through March 21, 1988, the number of AIDS cases increased markedly in all geographic regions (Figure 1). The cumulative world total increased from 11,965 in 1984 to 25,150 in 1985 (a 110% increase) and to 48,413 in 1986 (a 92% increase). Because of reporting lags, the global total of AIDS cases reported for 1987 is not yet complete; however, as of March 21, 1988, 34,913 cases had been reported for 1987

*Because of varying reporting practices, AIDS case data are not available for all countries for the same time period.

AIDS – Continued

(a 72% increase). Data on the distribution of AIDS cases by region are presented below, followed by a discussion of the findings.

Americas

Forty-two countries in the Americas have reported 73% of the world total of AIDS cases. As of March 21, 1988, the United States had reported a total of 54,233 cases. The case count in Brazil was 2,325; the number had increased from 801 at the end of June 1986 to 1,695 at the end of June 1987. Canada has reported a total of 1,517 cases. The following additional countries reported over 100 cases: Haiti (912), Mexico (713), Dominican Republic (352), Trinidad and Tobago (206), Bahamas (163), Colombia (153), Argentina (120), and Venezuela (101).

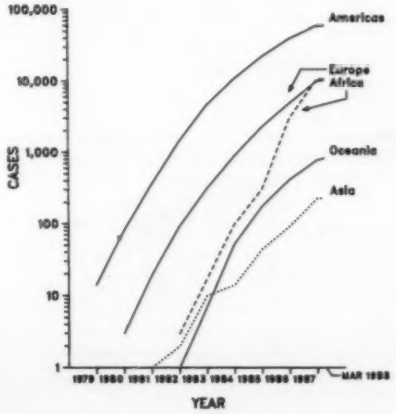
Europe

Twenty-eight countries in Europe have reported 13% of the world's total AIDS cases. Between December 1986 and December 1987, the number of cases reported from Europe to the WHO Collaborating Centre on AIDS (*4*) in Paris, France, increased by 124%. The greatest number of cases has been reported from France (3,073), the Federal Republic of Germany (1,669), Italy (1,411), the United Kingdom (1,227),

TABLE 1. AIDS cases reported to the World Health Organization (WHO), by continent, 1979 – March 21, 1988

Continent	Number of Cases	Number of Countries or Territories Reporting: No Cases	Number of Countries or Territories Reporting: 1 or More Cases	Total Number of Countries Reporting
Africa	10,973	8	42	50
Americas	61,602	2	42	44
Asia	231	16	21	37
Europe	10,616	1	27	28
Oceania	834	10	4	14
Total	**84,256**	**37**	**136**	**173**

FIGURE 1. Total AIDS cases reported to the World Health Organization, 1979 – March 21, 1988



AIDS — Continued

and Spain (789). The highest rates per population size are in France, Switzerland, and Denmark. Four countries with over 100 cases (Austria, France, Italy, and Spain) reported increases of more than 100% between December 1986 and December 1987. The lowest rates were reported from the Eastern European countries.

Ninety-two percent of patients reported from Europe were European; 4% were African; 1% were from the Caribbean; and 3% were from other countries (*4*). The relative percentage of patients who have been reported from Europe but whose country of origin is Africa has been decreasing over the past 2 years.†

The age distribution of patients in Europe (Table 2, see page 293) is similar to that in the United States except that Europe has a higher percentage of patients under 19 years of age (3% compared with 2%). Europe has a lower percentage of adult patients in the homosexual and homosexual/intravenous-drug-user transmission categories

†Such patients accounted for 12% of cases reported for Europe in June 1985, 6% in June 1986, and 4% in December 1987.

(Continued on page 293)

TABLE I. Summary — cases of specified notifiable diseases, United States

Disease	18th Week Ending			Cumulative, 18th Week Ending		
	May 7, 1988	May 9, 1987	Median 1983-1987	May 7, 1988	May 9, 1987	Median 1983-1987
Acquired Immunodeficiency Syndrome (AIDS)	638	U*	90	10,591	6,619	2,289
Aseptic meningitis	71	89	75	1,290	1,599	1,440
Encephalitis: Primary (arthropod-borne & unspec)	14	20	20	213	296	296
Post-infectious	5	1	2	32	26	35
Gonorrhea: Civilian	10,112	12,900	14,518	228,113	276,918	284,089
Military	137	391	384	4,220	5,994	6,905
Hepatitis: Type A	432	461	370	8,243	8,614	7,656
Type B	343	447	464	7,019	8,690	8,475
Non A, Non B	48	57	72	840	1,086	1,180
Unspecified	42	56	105	744	1,140	1,705
Legionellosis	23	14	13	245	283	219
Leprosy	5	-	7	64	73	97
Malaria	11	11	17	222	241	246
Measles: Total†	142	187	106	903	1,464	1,129
Indigenous	141	178	99	813	1,275	1,004
Imported	1	9	15	90	189	125
Meningococcal infections	77	42	56	1,265	1,329	1,209
Mumps	108	451	91	1,848	6,949	1,445
Pertussis	24	13	40	736	590	618
Rubella (German measles)	3	12	18	72	118	177
Syphilis (Primary & Secondary): Civilian	583	544	544	12,874	11,496	9,819
Military	4	1	3	68	68	79
Toxic Shock syndrome	6	-	4	99	108	140
Tuberculosis	418	375	417	6,291	6,790	6,790
Tularemia	1	2	3	31	38	33
Typhoid Fever	15	10	10	123	100	101
Typhus fever, tick-borne (RMSF)	3	11	15	25	32	49
Rabies, animal	104	119	119	1,374	1,710	1,710

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1988		Cum. 1988
Anthrax	-	Leptospirosis (Hawaii 1)	10
Botulism: Foodborne	4	Plague	1
Infant (Utah 2)	14	Poliomyelitis, Paralytic	-
Other	2	Psittacosis (Wash. 2)	26
Brucellosis (Calif. 1)	18	Rabies, human	-
Cholera	-	Tetanus (N.J. 1, Ala. 1)	15
Congenital rubella syndrome (N.C. 1)	2	Trichinosis (Mich. 2)	8
Congenital syphilis, ages < 1 year	-		
Diphtheria	-		

*Because AIDS cases are not received weekly from all reporting areas, comparison of weekly figures may be misleading.
†One of the 142 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending May 7, 1988 and May 9, 1987 (18th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1987	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1988
UNITED STATES	10,591	1,290	213	32	228,113	276,918	8,243	7,019	840	744	245	64
NEW ENGLAND	380	61	10	-	6,983	9,365	302	448	74	38	11	10
Maine	14	5	1	-	157	282	13	21	3	1	1	-
N.H.	9	10	-	-	104	158	25	19	4	3	1	-
Vt.	3	3	3	-	58	68	4	14	5	-	-	-
Mass.	203	25	5	-	2,510	3,478	182	280	50	29	7	9
R.I.	21	14	-	-	625	753	42	50	8	-	2	1
Conn.	130	4	1	-	3,529	4,628	56	64	4	5	-	-
MID. ATLANTIC	3,674	156	26	-	34,889	43,701	483	903	55	74	52	6
Upstate N.Y.	545	83	16	-	4,659	5,718	308	255	30	8	30	-
N.Y. City	2,096	26	5	-	15,000	23,162	78	412	4	51	3	5
N.J.	755	47	5	-	5,079	5,494	97	236	21	15	-	1
Pa.	278	-	-	-	10,151	9,327	-	-	-	-	19	-
E.N. CENTRAL	794	184	38	2	36,295	40,153	424	701	43	43	68	-
Ohio	181	64	17	2	8,971	8,530	124	194	16	7	24	-
Ind.	62	27	5	-	2,930	3,304	51	113	4	15	5	-
Ill.	385	4	-	-	10,439	12,251	41	43	-	3	-	-
Mich.	134	61	11	-	11,383	12,488	147	272	17	18	28	-
Wis.	32	8	5	-	2,572	3,570	61	79	7	-	9	-
W.N. CENTRAL	223	64	14	3	9,194	11,070	498	352	38	12	21	-
Minn.	42	13	2	-	1,245	1,840	24	49	5	3	-	-
Iowa	12	12	7	-	680	1,054	29	34	7	-	6	-
Mo.	113	19	-	-	5,185	5,554	270	210	19	6	2	-
N. Dak.	-	-	-	-	51	126	2	2	1	1	1	-
S. Dak.	3	5	-	1	188	220	-	1	2	-	7	-
Nebr.	16	3	1	2	537	660	17	18	-	-	3	-
Kans.	37	12	4	-	1,308	1,616	156	38	4	2	2	-
S. ATLANTIC	1,688	296	29	11	66,327	72,676	689	1,441	110	110	48	1
Del.	16	8	2	-	926	1,081	12	42	4	1	4	-
Md.	181	32	3	2	6,778	8,302	92	228	8	4	8	1
D.C.	169	8	-	-	4,491	4,916	6	17	3	1	-	-
Va.	126	32	13	2	4,522	5,512	136	97	23	79	5	-
W. Va.	5	7	1	-	527	547	5	25	2	3	-	-
N.C.	93	49	7	-	10,123	10,948	141	252	29	-	14	-
S.C.	60	4	-	-	4,870	5,994	19	210	5	3	5	-
Ga.	241	34	1	-	12,836	12,368	120	236	6	2	4	-
Fla.	797	122	2	7	20,254	22,998	159	334	30	23	6	-
E.S. CENTRAL	290	87	19	5	17,432	20,273	332	449	61	6	8	1
Ky.	35	31	5	1	1,481	2,055	295	86	27	2	4	-
Tenn.	144	10	5	-	5,861	6,974	24	218	16	-	2	-
Ala.	70	36	9	2	5,699	6,590	4	119	16	4	2	1
Miss.	41	10	-	2	4,391	4,654	9	26	2	-	-	-
W.S. CENTRAL	858	118	14	1	25,538	31,493	824	497	64	177	9	10
Ark.	32	3	2	-	2,351	3,119	108	32	1	4	2	-
La.	140	19	1	1	5,337	5,780	51	123	11	7	3	-
Okla.	35	11	4	-	2,358	3,409	209	69	17	16	4	-
Tex.	651	85	7	-	15,492	19,185	456	273	35	150	-	10
MOUNTAIN	371	54	17	1	4,764	7,319	1,174	561	85	81	14	-
Mont.	5	2	-	-	142	177	19	21	4	3	-	-
Idaho	3	1	-	-	139	255	57	34	2	1	-	-
Wyo.	1	1	-	-	73	138	1	4	3	-	1	-
Colo.	140	19	2	-	1,068	1,552	78	74	13	37	4	-
N. Mex.	19	1	1	-	470	794	209	72	4	1	1	-
Ariz.	129	17	5	-	1,665	2,637	609	236	36	24	5	-
Utah	25	7	4	1	227	237	126	43	17	11	2	-
Nev.	49	6	5	-	980	1,529	75	77	6	4	1	-
PACIFIC	2,313	290	46	9	27,691	40,868	3,517	1,667	310	197	18	36
Wash.	108	-	2	4	2,137	3,024	762	221	52	19	6	2
Oreg.	71	-	-	-	1,003	1,549	624	229	32	8	-	-
Calif.	2,089	257	42	5	23,900	35,280	2,021	1,170	222	166	10	33
Alaska	7	7	1	-	396	659	106	32	3	3	-	1
Hawaii	38	26	1	-	255	356	4	15	1	1	2	-
Guam	-	-	-	-	35	70	2	3	-	2	-	3
P.R.	496	10	2	-	512	794	9	91	18	15	-	-
V.I.	9	-	-	-	142	82	1	3	-	-	-	-
Amer. Samoa	-	-	-	-	-	192	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	13	37	-	1	-	-	-	-

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of the Northern Mariana Islands

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending May 7, 1988 and May 9, 1987 (18th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1988	1988	Cum. 1988	1988	Cum. 1988	Cum. 1987	Cum. 1988	1988	Cum. 1988	1988	Cum. 1988	Cum. 1987	1988	Cum. 1988	Cum. 1987
UNITED STATES	222	141	813	1	90	1,464	1,265	108	1,848	24	736	590	3	72	118
NEW ENGLAND	19	-	2	-	44	113	109	1	24	-	77	16	-	1	-
Maine	2	-	-	-	-	3	3	-	-	-	11	-	-	-	-
N.H.	-	-	1	-	43	92	13	-	20	-	22	2	-	-	-
Vt.	-	-	-	-	-	9	5	1	1	-	1	3	-	-	-
Mass.	12	-	1	-	-	5	45	-	3	-	33	4	-	-	-
R.I.	3	-	-	-	-	-	19	-	-	-	1	-	-	1	-
Conn.	2	-	-	-	1	4	24	-	-	-	9	7	-	-	-
MID. ATLANTIC	29	38	230	1	3	184	121	6	177	2	24	82	-	7	5
Upstate N.Y.	13	1	2	-	2	17	58	5	39	2	10	65	-	1	3
N.Y. City	9	2	23	-	-	124	18	1	50	-	1	-	-	4	1
N.J.	5	10	12	1†	1	8	45	-	22	-	3	4	-	1	1
Pa.	2	25	193	-	-	35	-	-	66	-	10	13	-	1	-
E.N. CENTRAL	10	2	51	-	4	205	127	19	438	5	80	80	-	20	18
Ohio	1	-	-	-	3	5	49	14	63	3	19	25	-	-	-
Ind.	-	-	-	-	-	-	12	1	39	-	36	1	-	-	-
Ill.	-	2	39	-	-	81	4	-	141	-	2	5	-	16	17
Mich.	8	-	12	-	1	23	44	4	133	2	16	24	-	4	1
Wis.	1	-	-	-	-	96	18	-	62	-	5	25	-	-	-
W.N. CENTRAL	6	1	1	-	-	41	52	11	97	-	35	35	-	-	1
Minn.	2	-	-	-	-	4	13	-	-	-	5	7	-	-	-
Iowa	-	-	-	-	-	-	-	-	26	-	14	3	-	-	1
Mo.	3	-	-	-	-	35	19	3	25	-	5	13	-	-	-
N. Dak.	-	-	-	-	-	1	-	-	-	-	6	2	-	-	-
S. Dak.	-	-	-	-	-	-	1	-	-	-	2	2	-	-	-
Nebr.	-	-	-	-	-	-	6	-	11	-	-	-	-	-	-
Kans.	1	1	1	-	-	1	13	8	36	-	3	8	-	-	-
S. ATLANTIC	30	23	174	-	10	47	216	2	166	5	65	123	-	1	9
Del.	-	-	-	-	-	1	1	-	-	-	3	-	-	-	-
Md.	2	1	2	-	2	-	23	-	9	4	16	2	-	-	2
D.C.	5	-	-	-	-	1	6	-	74	-	-	-	-	-	-
Va.	6	21	80	-	2	-	27	-	29	-	7	33	-	-	1
W. Va.	-	-	6	-	-	-	-	1	5	-	-	17	-	-	-
N.C.	5	-	-	-	1	-	34	1	22	1	24	53	-	-	-
S.C.	3	-	-	-	-	-	22	-	3	-	-	-	-	-	-
Ga.	2	-	-	-	-	-	35	-	11	-	14	13	-	-	1
Fla.	7	1	86	-	5	45	68	-	13	-	1	5	-	1	5
E.S. CENTRAL	4	23	28	-	-	2	118	43	267	1	11	7	-	-	2
Ky.	-	23	23	-	-	-	20	30	90	-	-	1	-	-	2
Tenn.	-	-	-	-	-	-	70	13	169	1	8	1	-	-	-
Ala.	3	-	-	-	-	-	20	-	6	-	2	3	-	-	-
Miss.	1	-	5	-	-	2	8	N	N	-	1	2	-	-	-
W.S. CENTRAL	21	-	9	-	-	75	86	17	327	3	34	40	-	4	1
Ark.	-	-	-	-	-	-	10	-	3	-	5	2	-	3	1
La.	3	-	-	-	-	-	28	2	131	3	5	9	-	-	-
Okla.	5	-	8	-	-	1	8	12	106	-	24	29	-	1	-
Tex.	13	-	1	-	-	74	40	3	87	-	-	-	-	-	-
MOUNTAIN	11	-	113	-	-	296	37	3	107	3	278	52	1	3	6
Mont.	1	-	-	-	-	42	-	-	2	-	1	2	-	-	-
Idaho	-	-	-	-	-	-	3	-	1	2	229	19	-	-	1
Wyo.	-	-	-	-	-	-	-	-	2	-	1	2	-	-	1
Colo.	5	-	113	-	-	9	-	23	-	7	17	1	2	-	-
N. Mex.	1	-	-	-	-	251	5	N	N	-	1	3	-	-	-
Ariz.	2	-	-	-	-	2	10	3	68	1	19	8	-	-	-
Utah	1	-	-	-	-	-	6	-	2	-	19	1	-	-	4
Nev.	1	-	-	-	-	1	1	-	9	-	1	-	-	1	-
PACIFIC	92	54	205	-	29	501	398	6	245	5	132	155	2	36	76
Wash.	7	-	-	-	-	1	32	2	12	2	28	24	-	-	-
Oreg.	5	-	-	-	-	34	19	N	N	-	3	13	-	-	1
Calif.	79	54	205	-	28	462	331	3	225	3	79	70	2	32	60
Alaska	1	-	-	-	-	-	4	-	6	-	3	3	-	-	-
Hawaii	-	-	-	-	1	4	13	1	2	-	19	45	-	4	15
Guam	-	-	-	-	1	2	-	-	2	-	-	-	-	1	1
P.R.	1	50	159	-	-	396	6	-	5	-	5	11	-	-	1
V.I.	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-
Amer. Samoa	-	1	-	-	-	1	-	1	-	-	-	1	-	-	1
C.N.M.I.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*For measles only, imported cases includes both out-of-state and international importations.
N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending May 7, 1988 and May 9, 1987 (18th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1988	Cum. 1987	Cum. 1988	Cum. 1988	Cum. 1987	Cum. 1988	Cum. 1988	Cum. 1988	Cum. 1988
UNITED STATES	12,874	11,496	99	6,291	6,790	31	123	25	1,374
NEW ENGLAND	344	172	9	122	194	1	9	-	3
Maine	5	1	1	3	14	-	-	-	1
N.H.	3	2	3	-	5	-	-	-	2
Vt.	-	1	2	-	4	-	-	-	-
Mass.	147	86	3	79	87	1	7	-	-
R.I.	12	5	-	9	21	-	-	-	-
Conn.	177	77	-	31	63	-	2	-	-
MID. ATLANTIC	2,625	2,042	16	1,077	1,248	-	19	2	139
Upstate N.Y.	158	77	7	195	190	-	2	1	1
N.Y. City	1,733	1,419	2	442	605	-	8	1	-
N.J.	297	234	3	212	219	-	9	-	-
Pa.	439	312	4	228	234	-	-	-	138
E.N. CENTRAL	411	337	16	762	801	1	12	-	28
Ohio	44	36	13	136	169	-	4	-	-
Ind.	21	18	-	78	76	-	2	-	6
Ill.	212	193	-	307	327	-	5	-	6
Mich.	124	61	3	187	200	1	1	-	4
Wis.	10	29	-	44	29	-	-	-	12
W.N. CENTRAL	85	50	13	174	189	14	4	3	173
Minn.	8	5	-	30	50	-	2	-	61
Iowa	10	8	2	14	10	-	-	-	13
Mo.	43	24	6	88	95	11	2	3	5
N. Dak.	1	-	-	3	1	-	-	-	28
S. Dak.	5	5	1	15	9	-	-	-	54
Nebr.	12	5	2	4	11	2	-	-	4
Kans.	6	3	2	20	13	1	-	-	10
S. ATLANTIC	4,547	3,970	9	1,451	1,349	4	16	13	473
Del.	52	34	-	16	14	1	-	-	18
Md.	257	217	1	149	111	-	1	1	119
D.C.	201	122	-	68	45	-	-	-	3
Va.	148	90	-	150	114	2	7	-	162
W. Va.	2	5	-	32	43	-	-	-	33
N.C.	256	218	5	109	129	-	1	10	-
S.C.	200	253	-	150	127	-	-	2	24
Ga.	748	547	-	221	200	1	2	-	77
Fla.	2,683	2,484	3	556	566	-	5	-	37
E.S. CENTRAL	714	696	11	526	583	4	2	3	117
Ky.	22	6	4	141	152	3	1	-	54
Tenn.	306	293	4	145	187	-	-	1	32
Ala.	200	177	3	159	180	-	1	2	31
Miss.	186	222	-	81	64	1	-	-	-
W.S. CENTRAL	1,352	1,459	8	776	752	3	2	2	198
Ark.	67	75	-	82	82	1	-	-	37
La.	247	258	-	113	104	-	2	-	-
Okla.	52	54	2	72	72	2	-	1	15
Tex.	986	1,072	6	509	494	-	-	1	144
MOUNTAIN	242	248	10	119	214	4	5	1	116
Mont.	2	7	-	-	8	-	1	-	94
Idaho	-	1	2	2	16	-	-	1	-
Wyo.	-	1	-	1	1	-	-	-	9
Colo.	30	38	1	8	40	3	3	-	-
N. Mex.	19	21	-	32	38	1	-	-	4
Ariz.	68	121	3	58	95	-	1	-	8
Utah	9	8	4	-	6	-	-	-	1
Nev.	114	51	-	18	10	-	-	-	-
PACIFIC	2,554	2,520	7	1,294	1,460	-	54	1	129
Wash.	61	49	-	78	73	-	3	-	-
Oreg.	102	92	-	45	43	-	5	-	-
Calif.	2,372	2,372	7	1,104	1,247	-	44	1	125
Alaska	6	2	-	13	25	-	-	-	4
Hawaii	13	5	-	54	72	-	2	-	-
Guam	-	2	-	7	4	-	-	-	-
P.R.	227	324	-	74	86	-	2	-	23
V.I.	1	3	-	3	2	-	-	-	-
Amer. Samoa	-	83	-	-	69	-	-	-	-
C.N.M.I.	-	2	-	-	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending May 7, 1988 (18th Week)

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	663	469	117	41	19	16	56
Boston, Mass.	190	131	33	11	8	7	23
Bridgeport, Conn.	50	34	7	6	2	1	2
Cambridge, Mass.	28	19	6	2	-	-	4
Fall River, Mass.	22	19	3	-	-	-	3
Hartford, Conn.	64	39	12	6	4	3	3
Lowell, Mass.	23	16	3	2	2	-	3
Lynn, Mass.	18	16	2	-	-	-	1
New Bedford, Mass.	31	19	9	-	3	-	1
New Haven, Conn.	43	31	7	5	-	-	3
Providence, R.I.	53	40	11	2	-	-	1
Somerville, Mass.	5	5	-	-	-	-	2
Springfield, Mass.	49	32	9	4	-	4	2
Waterbury, Conn.	30	23	6	1	-	-	3
Worcester, Mass.	57	45	9	2	-	1	5
MID. ATLANTIC	2,741	1,788	554	260	68	66	147
Albany, N.Y.	62	45	11	3	2	1	-
Allentown, Pa.	14	11	2	1	-	-	-
Buffalo, N.Y.	118	81	24	5	8	-	16
Camden, N.J.	46	31	9	3	1	2	-
Elizabeth, N.J.	37	25	3	2	2	5	-
Erie, Pa.†	36	22	12	1	1	-	1
Jersey City, N.J.	67	43	12	9	1	2	1
N.Y. City, N.Y.	1,424	896	295	177	31	35	88
Newark, N.J.	35	14	11	6	1	3	-
Paterson, N.J.	37	24	4	6	1	2	1
Philadelphia, Pa.	392	243	101	30	8	10	29
Pittsburgh, Pa.†	64	45	16	-	1	2	-
Reading, Pa.	37	29	5	1	2	-	3
Rochester, N.Y.	143	109	21	9	3	1	18
Schenectady, N.Y.	27	24	2	1	-	-	1
Scranton, Pa.†	32	25	2	-	-	-	1
Syracuse, N.Y.	77	63	8	3	1	2	3
Trenton, N.J.	34	28	5	-	1	-	-
Utica, N.Y.	24	16	6	1	1	-	-
Yonkers, N.Y.	35	24	5	2	3	1	5
E.N. CENTRAL	2,281	1,524	464	153	50	70	94
Akron, Ohio	71	46	19	4	-	2	-
Canton, Ohio	31	25	4	1	1	-	1
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	111	79	20	7	3	2	11
Cleveland, Ohio	152	87	38	11	5	11	1
Columbus, Ohio	167	109	33	12	11	2	-
Dayton, Ohio	112	80	17	10	1	4	4
Detroit, Mich.	222	141	43	22	10	6	7
Evansville, Ind.	43	30	9	1	2	1	2
Fort Wayne, Ind.	57	35	14	6	2	-	4
Gary, Ind.	10	7	2	1	-	-	-
Grand Rapids, Mich.	51	35	7	5	3	1	10
Indianapolis, Ind.	191	127	36	13	4	11	6
Madison, Wis.	38	26	10	-	2	-	1
Milwaukee, Wis.	139	106	27	4	1	1	8
Peoria, Ill.	48	37	8	1	1	1	4
Rockford, Ill.	44	34	9	-	-	1	4
South Bend, Ind.	43	32	6	3	1	1	2
Toledo, Ohio§	116	86	22	4	1	3	10
Youngstown, Ohio	61	40	15	3	2	1	3
W.N. CENTRAL	800	561	156	43	18	22	37
Des Moines, Iowa	63	49	8	2	2	2	3
Duluth, Minn.	43	33	8	1	1	-	5
Kansas City, Kans.	41	30	8	2	-	1	-
Kansas City, Mo.	92	66	21	2	1	2	10
Lincoln, Nebr.	31	21	10	-	-	-	3
Minneapolis, Minn.	207	149	32	15	6	5	4
Omaha, Nebr.	72	46	15	6	1	4	3
St. Louis, Mo.	128	82	27	13	2	4	4
St. Paul, Minn.	72	53	15	2	2	-	-
Wichita, Kans.	51	32	12	-	3	4	5
S. ATLANTIC	1,326	824	261	151	38	50	81
Atlanta, Ga.	170	104	41	19	4	2	8
Baltimore, Md.	292	183	58	29	5	17	8
Charlotte, N.C.	59	42	13	3	1	-	6
Jacksonville, Fla.	123	82	20	14	3	4	15
Miami, Fla.	116	56	22	24	6	7	1
Norfolk, Va.	66	48	9	7	-	2	5
Richmond, Va.	79	51	12	12	3	1	6
Savannah, Ga.	48	37	8	1	-	2	10
St. Petersburg, Fla.	70	41	14	12	2	1	3
Tampa, Fla.	63	46	7	4	3	2	4
Washington, D.C.	203	102	51	26	11	12	8
Wilmington, Del.	38	32	6	-	-	-	7
E.S. CENTRAL	772	534	149	46	23	20	51
Birmingham, Ala.	121	81	23	7	5	5	5
Chattanooga, Tenn.	55	39	11	2	1	2	6
Knoxville, Tenn.	80	54	19	2	3	2	6
Louisville, Ky.	115	93	14	4	3	1	5
Memphis, Tenn.	178	121	38	13	2	4	16
Mobile, Ala.	82	56	9	10	7	-	7
Montgomery, Ala.	30	22	4	1	1	2	-
Nashville, Tenn.	111	68	31	7	1	4	6
W.S. CENTRAL	1,336	803	313	124	46	50	54
Austin, Tex.	58	37	9	9	3	-	4
Baton Rouge, La.	35	18	10	6	1	-	-
Corpus Christi, Tex.	29	20	8	-	1	-	-
Dallas, Tex.	214	121	49	22	9	13	6
El Paso, Tex.	61	35	17	3	1	5	7
Fort Worth, Tex	101	62	24	9	3	3	5
Houston, Tex.§	308	176	74	34	13	11	7
Little Rock, Ark.	46	27	10	5	1	3	3
New Orleans, La.	113	65	30	9	6	3	-
San Antonio, Tex.	210	130	50	19	6	5	11
Shreveport, La.	66	51	9	2	-	4	4
Tulsa, Okla.	95	61	23	6	2	3	7
MOUNTAIN	570	372	117	41	14	26	36
Albuquerque, N. Mex.	71	45	13	7	2	4	5
Colo. Springs, Colo.	29	21	3	3	1	1	5
Denver, Colo.	102	69	22	5	3	3	5
Las Vegas, Nev.	95	56	31	5	2	1	7
Ogden, Utah	19	13	4	1	-	1	2
Phoenix, Ariz.	109	63	21	13	4	8	5
Pueblo, Colo.	21	16	3	1	-	1	-
Salt Lake City, Utah	36	23	7	3	2	1	-
Tucson, Ariz.	88	66	13	3	-	6	7
PACIFIC	1,944	1,272	382	170	57	61	124
Berkeley, Calif.	29	21	4	2	2	-	-
Fresno, Calif.	96	63	18	6	4	5	9
Glendale, Calif.	24	19	1	4	-	-	1
Honolulu, Hawaii	82	60	15	3	2	2	10
Long Beach, Calif.	89	63	14	4	5	3	16
Los Angeles Calif.	491	297	117	49	14	4	17
Oakland, Calif.	88	56	15	4	4	9	6
Pasadena, Calif.	34	25	7	-	-	2	-
Portland, Oreg.	124	98	15	5	4	2	8
Sacramento, Calif.	167	108	37	18	1	3	25
San Diego, Calif.	154	95	30	15	4	9	13
San Francisco, Calif.	161	92	35	26	5	2	2
San Jose, Calif.	174	117	35	11	7	4	7
Seattle, Wash.	138	88	24	17	5	4	2
Spokane, Wash.	50	37	8	4	-	1	5
Tacoma, Wash.	43	33	7	2	-	1	3
TOTAL	12,413††	8,147	2,513	1,029	333	371	680

*Mortality data in this table are voluntarily reported from 121 cities in the United states, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza.

†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§Data not available. Figures are estimates based on average of past available 4 weeks.

AIDS — Continued

than the United States and a higher percentage in the heterosexual, blood-related, and undetermined/other categories (Table 3). In addition, Europe has a higher percentage of pediatric patients in the hemophilia/coagulation-disorder category than the United States and a lower percentage with a parent with AIDS or at increased risk for AIDS.

Intravenous (IV) drug users account for 64% of adult patients in Italy and 53% of adult patients in Spain. Both countries together reported 66% of the IV-drug-related cases in Europe. In the following six countries reporting more than 50 cases, 75% or more of the patients were homosexual males: the Netherlands (88%), the United

TABLE 2. AIDS cases, by age group and sex — 28 countries in the World Health Organization's European Region, December 31, 1987

Age Group	Male	Female	Total	(%)
0–11 mos	40	48	88	(0.9)
1–4 yrs	52	48	100	(1.0)
5–9 yrs	24	7	31	(0.3)
10–14 yrs	29	3	32	(0.3)
15–19 yrs	77	14	91	(0.9)
20–29 yrs	2,325	551	2,876	(28.2)
30–39 yrs	3,440	255	3,695	(36.3)
40–49 yrs	2,031	72	2,103	(20.7)
50–59 yrs	736	53	789	(7.7)
≥ 60 yrs	281	52	333	(3.3)
Unknown	38	2	43*	(0.4)
Total	**9,073**	**1,105**	**10,181**	**(100.0)**

*Sex of three patients is unknown.

TABLE 3. Reported AIDS cases among adult and pediatric patients, by transmission category — Europe, December 31, 1987, and United States, January 4, 1988*

	Europe		United States	
Transmission Categories of Patients	**No.**	**(%)**	**No.**	**(%)**
Adult Patients				
Homosexual/Bisexual Male	5,865	(59)	32,138	(65)
Intravenous (IV) Drug Use	1,944	(20)	8,511	(17)
Homosexual Male and IV Drug Use	259	(3)	3,726	(8)
Hemophilia/Coagulation Disorder	349	(4)	494	(1)
Heterosexual Contact	609	(6)	1,987	(4)
Transfusion	359	(4)	1,144	(2)
Other/Undetermined	545	(5)	1,515	(3)
Total	**9,930**	**(100)**	**49,515**	**(100)**
Pediatric Patients				
Hemophilia/Coagulation Disorder	38	(15)	40	(5)
Parent with/at Risk for AIDS	170	(68)	577	(77)
Transfusion	38	(15)	99	(13)
Other/Undetermined	5	(2)	34	(5)
Total	**251**	**(100)**	**750**	**(100)**

*The latest data analysis available for Europe is for December 31, 1987. The January 4, 1988, U.S. analysis is used here because it most closely approximates the time frame of the European analysis.

AIDS — Continued

Kingdom (87%), Denmark (86%), Sweden (81%), Norway (79%), and the Federal Republic of Germany (76%).

Africa

Thirty-eight countries in the African Region have reported 13% of the world's total AIDS cases. Fifteen African countries reported more than 50 cases each. Zimbabwe[1] and Zaire have each reported 300 to 500 cases, and Uganda, Tanzania, Congo, Kenya, Burundi, Rwanda, Malawi, and Zambia have each reported more than 500 cases. Central, eastern, and southern Africa have reported the largest number of cases. Although cases were first officially reported from Africa in the second half of 1982, over 70% of all cases (7,906) were reported in 1987.

Other Areas

Oceania has reported a total of 834 AIDS cases; Asia, a total of 231 cases; and the eastern Mediterranean countries, 100 cases. The major reporting countries (>20 cases) from these areas were Australia (758 cases), New Zealand (74), Japan (59), Qatar (32), and Turkey (21).

Discussion

Worldwide AIDS surveillance is coordinated by GPA at WHO in Geneva. Reports are received from collaborating centers, including CDC in the United States, the WHO Collaborating Centre in Paris, and WHO regional offices and ministries of health. Accuracy and completeness of AIDS reporting vary in different areas of the world. In 1985, a review of death certificates in the United States suggested that 89% of AIDS cases meeting the surveillance definition were reported (*5*). In Africa, reporting has only recently started in some countries and is, therefore, incomplete. Consequently, the proportion of AIDS cases that are reported in Africa is unknown. The WHO clinical case definition, used in areas where the prevalence of HIV is high, has a specificity of over 90% (*6*).

Epidemiologic studies indicate three broad yet distinct geographic patterns of transmission. Pattern I is typical of industrialized countries with large numbers of reported AIDS cases, such as North America, Western Europe, Australia, New Zealand, and parts of Latin America. In these areas, most cases occur among homosexual or bisexual males and urban IV drug users. Heterosexual transmission is responsible for only a small percentage of cases but is increasing. Transmission due to exposure to blood and blood products occurred between the late 1970s and 1985 in these countries but has now been largely controlled through the self-deferral of persons at increased risk for AIDS and by routine blood screening for human immunodeficiency virus (HIV) antibody. The ratio of male to female patients ranges from 10:1 to 15:1, and, to date, perinatal transmission is relatively uncommon. Overall population seroprevalence is estimated to be less than 1% but has been measured at up to 50% in some groups practicing high-risk behaviors, such as IV drug users and men with multiple male sex partners.

Pattern II is observed in areas of central, eastern, and southern Africa and in some Caribbean countries. In these areas, most cases occur among heterosexuals; the male to female ratio is approximately 1:1; and perinatal transmission is relatively more common than in other areas. IV drug use and homosexual transmission either do not occur or occur at a very low level. In a number of these countries, overall population seroprevalence is estimated at more than 1%, and, in a few urban areas, up to 25% of

[1]As of April 1988, Zimbabwe officially retracted its report of 380 cases pending a national review of the accuracy of its reporting system.

AIDS — Continued

the sexually active age group is infected. Transmission through contaminated blood and blood products has been a significant problem and continues in those countries that have not yet implemented nationwide donor screening.

Pattern III is found in areas of Eastern Europe, the Middle East, Asia, and most of the Pacific. HIV appears to have been introduced into these areas in the early to mid-1980s, and only small numbers of cases have been reported. Homosexual and heterosexual transmission have only recently been documented. Generally, cases have occurred among persons who have traveled to endemic areas or who have had sexual contact with individuals from endemic areas, such as homosexual men and female prostitutes. A small number of cases due to receipt of imported blood products has been reported.

Under its charter, the World Health Assembly of WHO has authorized GPA to develop and coordinate a global strategy for AIDS prevention and control. As of March 1988, 115 member states had agreed to collaborate in supporting and developing short-term (<1 year) plans for AIDS control. Between February 1987 and March 1988, GPA provided over 250 consultant visits to assist countries in developing these plans.

WHO is conducting worldwide surveillance of AIDS, developing standardized methods for HIV serosurveys, and creating a Global Commission on AIDS to provide GPA with scientific and technical guidance. In addition, experts have met in Geneva to discuss a variety of HIV-related issues. Health promotion and HIV prevention strategies have also been developed.[¶] GPA is organizing a network of specimen banks for geographically and temporally representative retroviral isolates and sera. GPA is also collaborating with a working group of leading AIDS virologists to standardize the characterization of HIV and related human retroviruses.

Although the number of AIDS cases is expected to increase significantly over the next few years, there is growing confidence that the spread of HIV can be stopped. Stopping HIV infection, however, will require a commitment that goes beyond geographic boundaries. Education and the means to eliminate or modify risk factors and risk behaviors will be the key. The global control of AIDS will require both committed national AIDS programs and strong international coordination, cooperation, and leadership.

Reported by: J Chin, MD, CF von Reyn, MD, K Esteves, G Peterson, MD, E Brenner, MD, J Mann, MD, Global Programme on AIDS, WHO. JB Brunet, MD, RA Ancelle, MD, WHO Collaborating Centre on AIDS, Institut de Médecine et d'Épidémiologie Africaines et Tropicales, Paris, France.

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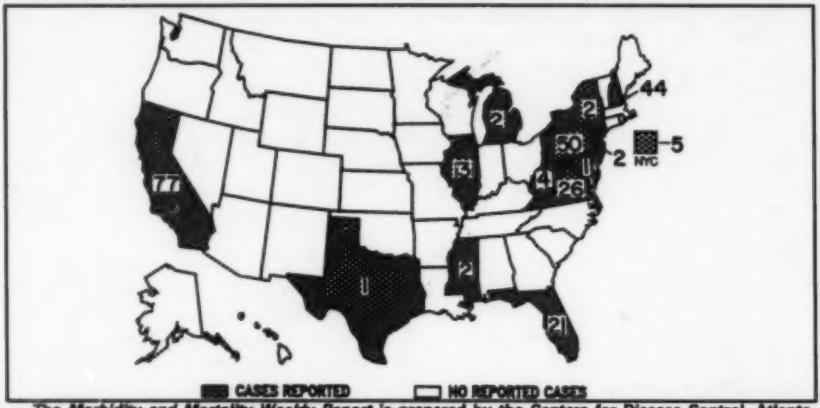
[¶]Published materials on these topics may be obtained by writing to the Global Programme on AIDS, WHO, 1211 Geneva, 27-Switzerland.

FIGURE I. Reported measles cases — United States, Weeks 14–17, 1988



The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday. The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

Director, Centers for Disease Control
James O. Mason, M.D., Dr.P.H.

Director, Epidemiology Program Office
Carl W. Tyler, Jr., M.D.

Editor
Michael B. Gregg, M.D.

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Gwendolyn A. Ingraham

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